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CTR-133288

TIMBER RESOURCE INFORMATION SYSTEM

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23 July 1973

Type II Progress Report for Period 1 January 1973 - 30 June 1973

(E73-10804) TIMBER RESOURCES INFORMATION  
SYSTEM Progress Report, 1 Jan. - 30  
Jun. 1973 (Bureau of Indian Affairs)

5 p HC \$2.00

CSCL 02F

N73-27279

Unclas  
00804

G3/13

Prepared for:

Goddard Space Flight Center  
Greenbelt, Maryland 20771

Publication authorized by the Assistant Secretary for Indian Affairs.

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle  TIMBER RESOURCES INFORMATION SYSTEM (SR 229)		5. Report Date 23 July 1973	
		6. Performing Organization Code	
7. Author(s) Arthur M. Woll (IN053)		8. Performing Organization Report No.	
9. Performing Organization Name and Address Code 320 Bureau of Indian Affairs 1951 Constitution Avenue, N.W. Washington, D. C. 20245		10. Work Unit No.	
		11. Contract or Grant No. S-70243-AG	
12. Sponsoring Agency Name and Address Frederick Gordon, Jr. Goddard Space Flight Center Greenbelt, Maryland 20771		13. Type of Report and Period Covered Type II Progress Report 1 Jan. 1973 - 30 June 1973	
		14. Sponsoring Agency Code	
		15. Supplementary Notes	
16. Abstract  The investigators are convinced that high-altitude photography when supported with ground measurements and existing surveys, contain all the resource data needed for overall land management planning. This overall planning would include land-use classification, environmental impact statements, etc. First inspection of the RBV-ERTS imagery on the Quinault Reservation shows that much of the cultural and resource detail can be identified. Of particular note, is the obvious contrast between recently harvested timber cutting blocks as opposed to those cut more than a year ago. The RBV color composite would have been of better definition if Band 3 had been excluded. Land managers are disappointed at first viewing ERTS imagery in that it is not stereoscopic and find the scale and resolution at the 9 x 9 format difficult to interpret or translate to their ground truth. We are making arrangements to have 1 to 250,000 enlargement prints for their use. Category 1B.			
17. Key Words Suggested by Author  land manager overall reservation planning resource overlays		18. Distribution Statement	
19. Security Classif. (of this report)  Unclassified	20. Security Classif. (of this page)	21. No. of Pages  5	22. Price

Figure 2A. Technical Report Standard Title Page. This page provides the data elements required by DoD Form DD-1473, HEW Form OE-6000 (ERIC), and similar forms.

Type II Progress Report  
ERTS-1

- a. Timber Resource Information System (TRIS)  
SR 229
- b. IN 053
- c. The Service Center for BLM in Portland, Oregon has agreed to serve as a data handling facility for this investigation. A central facility is needed to accommodate all the organizations involved; the Quinault Tribe in western Washington, Colville Tribe in eastern Washington, and Warm Springs Tribe in Oregon; Washington State Department of Natural Resources; BLM (State Office and Service Center); U.S. Forest Service; and Bureau of Indian Affairs. The cost of duplicating data and the limited facilities with which to do it, necessitated this central handling facility. The center has U-2 film flown in August 1972 and also ERTS imagery from that period. ERTS data were hand carried to Portland in February. We are awaiting April and May ERTS imagery which is necessary for change detection or resource monitoring. The data center has received two (2) orbits of MSS for April. We have just completed a Data Analysis Plan. During this period NASA flew their second and last high altitude aircraft support in simulated ERTS-1 configuration. The flight was on 11 May with cloud-free weather and imagery of excellent quality. The four (4) spectral bands in the vinten sensor plus aerochrome infrared in the RC-10 will give us excellent seasonal comparison to that flown in August 1972.
- d. The investigators from each agency agreed that their land managers need an information system from TRIS that will: 1) translate technical data into meaningful information, and 2) monitor the results of his actions on the environment. The work statement calls for resource overlays delineated from the high-altitude aircraft photography. These delineations represent "ground truth" in units large or broad enough for identification and monitoring from the ERTS imagery.. The investigators are convinced that their NASA and other high-altitude photography (for example, Mark Hurd photography, flown 7-1/2 minute quad center, for orthophoto mapping on the Colville) when supported with ground measurements and existing surveys, contain all the resource data needed for overall land management planning. This overall planning would include land-use classification, environmental impact statements, etc. The Quinault Tribe is contracting to have a planimetric base map prepared from their NASA, RC-10 camera, U-2 flight, flown in August 1972 as aircraft support of the ERTS-1 coverage. This was flown within one day of the ERTS, RBV coverage of 30 July 72. We have had GE make a color composite of RBV bands 1, 2, and 3 from this July 30 orbit.

Preliminary work statements show two of the agencies have added investigations to the basic theme of interpreting and monitoring. The State of Washington is going to directly compare the same data in their cellular information storage system to the "Raytheon or Boeing type" polygon system. BLM plans to make a computer aggregate of map and descriptive attributes into broad delineations to help identify the relationship between ground data and the ERTS imagery. We are presently compiling the formal work statements for each agency involved. Land managers are preparing their overlays for land use, vegetation, land form, soils, hydrology, and cultural/political boundaries. These overlays are being prepared from the high altitude photography and other available data. The Quinaults have been delayed in preparing their overlays until the completion of the planimetric base map being prepared from the NASA RC-10 camera flight in August 1972. The base map is being prepared by Spence Gross (Portland, Oregon Photogrammetrist) on a wild A10 plotter to show (1) all major roads and logging roads, (2) reservation boundaries, (3) logging cutting boundaries when sharply contrasted on the photograph or imagery and villages. All this information can be identified and mapped from satellite and is being built into an operational updating program. The investigators first look at ERTS imagery, they are disappointed it is not in stereoscopic and find the scale and resolution at the 9 x 9 format difficult to interpret or translate to their ground truth. We are making arrangements to have 1 to 250,000 enlargement prints for their use. We will make ERTS color composites for each season, using a band combination showing optimum vegetative and cultural features as shown in an additive color viewer. We are studying which ERTS scene would allow the best analysis for digital processing.

- e. The investigators are convinced that high-altitude photography when supported with ground measurements and existing surveys, contain all the resource data needed for overall land management planning. This overall planning would include land-use classification, environmental impact statements, etc. First inspection of the RBV-ERTS imagery on the Quinault Reservation shows that much of the cultural and resource detail can be identified. Of particular note, is the obvious contrast between recently harvested timber cutting blocks as opposed to those cut more than a year ago. The RBV color composite would have been of better definition if Band 3 had been excluded. Land managers are disappointed at first viewing ERTS imagery in that it is not stereoscopic and find the scale and resolution at the 9 x 9 format difficult to interpret or translate to their ground truth. We are making arrangements to have 1 to 250,000 enlargement prints for their use. Category 1B.

- f. No publications.
- g. None.
- h. Our Technical Monitor is Frederick Gordon, Jr.
- i. No change in descriptor forms prepared at this time.
- j. No listing of change in data request forms.
- k. No formal request made for data collection platforms at this time.